Amendments to the Claims:

The listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) An intraocular lens, in which

a curvature on at least one of the lens surfaces follows ~~the~~ a conic section function:

$$y^2 = px - (1 + asph)\, x^2.$$

wherein x coincides with ~~the~~ a direction of central light propagation or the lens thickness, y specifies the direction perpendicular thereto, radially outwardly with respect to the lens centre, p is any parameter of a radius in a conic section apex, and asph is the asphericity, and;

having a configuration such that, in an in vivo environment of an eye, an incoming wave with an elliptically oblongly curved wave front is refracted into an outgoing wave with a substantially spherical wave front.

2. (Previously Presented) An intraocular lens according to claim 1,

wherein the lens has a positive refractive power in the environment and a negative spherical aberration.

3. (Previously Presented) An intraocular lens according to claim 2,

wherein the lens has a refractive power at the center of the lens which in the environment is greater than or equal to +3 dpt, and wherein the lens is so configured that, in an air environment, an incoming wave with a substantially plane wave front is refracted into an outgoing wave with a hyperbolic wave front.

4. (Previously Presented) An intracular lens according to claim 3,

wherein the hyperbolic wave front has an asphericity of less than or equal to -5.

5. (Previously Presented) An intraocular lens according to claim 3,

wherein the lens has at least one convexly curved surface whose curvature has an asphericity of less than or equal to -1.

6. (Previously Presented) An intraocular lens according to claim 1,

wherein the lens has a refractive power at the center of the lens which in the environment is at most +2 dpt and at least -1 dpt, and wherein the lens is so configured that an incoming wave with a substantially plane wave front is refracted into an outgoing wave whose apex surface has a meridian with an inflexion point.

7. (Currently Amended) An intraocular lens according to claim 1,

wherein the lens has a refractive power at the center of the lens which in the environment is less than or equal to -2 dpt, and wherein the lens is so configured that an incoming wave with a substantially plane wave front is

refracted into an outgoing wave with an elliptically oblongly curved wave front whose ~~aspericity~~ asphericity measured in air is greater than + 10.

8. (Previously Presented) A method of determining the imaging properties of an intraocular lens, according to claim 1, comprising:

- producing a parallel light beam,

- orienting the light beam onto the intraocular lens,

- breaking the light beam refracted by the intraocular lens down into a plurality of focused beams via a lens arrangement, and

- detecting local distribution of the focus beams focused by the lens arrangement.

9. (Previously Presented) An intraocular lens according to claim 5, wherein the hyperbolic wave front has an asphericity of less than or equal to -5.